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UMPQUA RIVER AREA (OREGON): PRELIMINARY ESTIMATE OF ECONOMIC GROWTH, 1960-2010

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Prepared by: Economic Studies Group
Water Supply and Pollution Control Program
Pacific Northwest

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I. Introduction.

A. Purpose of Analysis.

This analysis is intended to provide a preliminary estimate of the economic potentials and a broad guide to the anticipated growth of the subject area.

B. Definition of the Area.

The Umpqua River drainage basin conforms approximately to the boundaries of Douglas County, and for purposes of this analysis, the county has been used as the unit of study. In terms of area, the departures of the basin boundary from the county boundary are roughly offsetting. In terms of population, the areas where basin and county boundaries do not coincide are almost entirely uninhabited. The convenience and accuracy of using available statistics, all on a county basis, indicate the advisability of using the county as the unit of study.

C. Study Period.

The 50-year period 1960-2010, with an interim point at 1980, is being used by this office in its economic studies of the Columbia basin as a whole, and the same period is used for this Umpqua River area analysis.

D. Limitations of this Analysis.

This is intended only as an initial estimate of the outlook for the Umpqua River area. Subsequently, in connection with the Columbia basin study, an analysis will be made, on an industry-by-industry basis, of the growth potential in such sub-basins as the Umpqua. At that time, this preliminary estimate for the Umpqua area will be reviewed, and revised if necessary.

II. Present Economic Development.

A. Population.

Population of Douglas County as of April 1, 1960, was 68,458. This gave the county an average density of 13.5 persons per square mile, lower than any other county in western Oregon, except Curry.

The low average density is accentuated by the fact that a large part of the population is concentrated in the narrow valleys near the junction of the North and South Umpqua. About 31,000 persons (45 percent of the county total) live within a radius of ten miles from the center of Roseburg.[1/] Another 10,000 live in other towns along the main highway and railroad bisecting the county from north to south, and most of the remaining population is also along this central artery, though outside incorporated places. The only significant cluster of population outside the central strip is Reedsport, with a population of 3,000. Most of the county is very sparsely settled, with large areas of virtually uninhabited and rugged national forest land.

The 1960 census classifies only 19,541 of the county total population as "urban", a term defined to apply to densely built-up communities of more than 2,500 persons. Included in the "urban" portion of Douglas County are Roseburg, 11,467; Reedsport, 2,998; and Barnes, an unincorporated community adjacent to and north of Roseburg, 5,076. Of the remaining "non-urban" population, 12,659 live in incorporated places smaller than 2,500, and the other 36,258 live outside incorporated places. This last figure, however, obscures the fact that many people outside incorporated places live in densely built-up areas close to towns. The community of Barnes, a satellite of Roseburg referred to above, is an example. Only a small fraction of those residing outside incorporated places make their living in commercial agriculture.

B. The Present Industrial Pattern.

The economy of Douglas County is one of the most highly specialized and non-diversified in the State. Over half of all employment, and 90 percent of all manufacturing employment, is in lumber and wood products.

The dominance of lumber and wood products employment is emphasized by considering the relatively low employment in other industrial categories. Employment in service industries in Douglas County is considerably below the State average, on a per capita basis. Douglas County is part of the Portland Region, and many service functions (wholesale trade and finance, for example) are performed in Portland for outlying areas such as Douglas County. An exception is the U. S. Veteran's Hospital in Roseburg, which employs about 450 persons, and provides the only major diversification of the lumber-wood products economic base.

1/This includes Roseburg, East Roseburg, Lookingglass, Riverdale, Wilbur, and Winchester, and a portion of Melrose census county divisions.

As for agriculture, while certain specialty crops (melons, for example) have some significance, agriculture as a whole provides a relatively small share of total employment. In 1959, there were only 371 farms in the entire county with annual gross sales of $5,000 or more. Food processing employment is also relatively low, 158 in April 1960, equal to only one-quarter of the State average on a per capita basis.

Agriculture in the county emphasizes grazing. Of the 505,000 acres in farms at the time of the 1959 Census of Agriculture, only 6 percent were in harvested cropland, and 78 percent were in pasture. By comparison to adjoining counties, harvested cropland as a percentage of total acreage in farms was 8 percent in Jackson County, 16 percent in Josephine County, and 25 percent in Lane County. According to the 1959 Census of Agriculture, there are more sheep in Douglas County than in any other county in the State. The wool is, however, shipped out of the county; no employment was reported in 1960 in textile manufacturing in Douglas County.

Table 1 (following page) shows how the distribution of non-agricultural employment in Douglas County compared, as of April 1960, with the distribution in the State as a whole. The data are for "covered employment" only (that is, employees covered by the State unemployment compensation law) and exclude self-employed persons.

C. Geographic Distribution.

The concentration of the county's population in the area around the junction of the North and South Umpqua and along the main highway and railroad running north and south has been discussed above in Section II-A, "Population". Table 2 shows how the population is distributed among the three main drainage basins in the county, the South Umpqua, the North Umpqua, and the "Main Stem" below their junction. Included in the area assigned to "Main Stem" are the drainage basins of Elk Creek, Smith River and Calapooya Creek, all of which flow into the Umpqua "Main Stem". (Table 2 appears on page 5 of this report.)

III. Estimated Growth, 1960-2010.

A. The Economic Base.

The economy of Douglas County has grown rapidly during the past two decades. During the period 1940-50, its population increased more rapidly than any other county in the State, and in the period 1950-60, its growth rate still exceeded the State average by 50 percent. However, it appears unlikely that such high rates of growth will continue in the period 1960-2010.

Table 1 (See Section IIB)
COVERED EMPLOYMENT IN NON-AGRICULTURAL INDUSTRIES
Actual Employment by Industry in Douglas County, April 1960
and Percentage Distribution in Douglas Co. Compared to Oregon as a Whole

Industry	Number of Employees, Douglas County	%age Distribution		Employment in Douglas as % of "expectable"(a) Employment
		Douglas County	State of Oregon	
Mining	152	1.00	0.27	371
Construction	386	2.52	5.82	43
Manufacturing, total	9,355	61.15	34.27	178
Lumber, wood prod.	8,571	56.03	17.59	319
Machinery, ex.elec.	110	0.72	1.32	55
Food and kindred	158	1.03	4.12	25
Print., Publish.	106	0.69	1.25	55
Stone,clay,glass	32	0.21	0.69	30
All other mfr.	378	2.47	9.30	27
Trans., Comm., Util.	687	4.49	7.78	58
Wholesale Trade	327	2.14	7.43	29
Retail Trade	2,219	14.50	19.29	75
Finan.,Ins.,Real Est.	299	1.95	4.74	41
All other services (b)	849	5.55	9.72	57
Government	1,025(c)	6.70	10.68	63
TOTAL	15,299	100.00	100.00	

(a) "Expectable" employment means the employment that would have been found in Douglas County if the distribution of total employment had been the same as in the State as a whole.

(b) Includes business and repair services, entertainment and recreation, personal services, and professional services.

(c) Includes approximately 450 Federal employees at U. S. Veterans' Hospital at Roseburg.

Source: Oregon Department of Employment, Covered Employment and Payrolls, Second Quarter, 1960.

Douglas County's recent rapid growth might be called "abnormal" in two senses: (1) it resulted from the surge of growth associated with the beginning of large-scale exploitation of a forest resource which was one of the richest still standing in the country and which had not theretofore been cut because adequate timber was still available in the northern part of the State; and (2) it was one-sided in that it depended almost entirely upon new jobs in lumber and wood products.

The outlook for growth of the Douglas economy depends upon possibilities for (1) maintaining or increasing the annual timber harvest, and (2) diversifying the economy, either by further fabrication or greater utilization of the timber harvest or by development of new types of resources. For this preliminary estimate, it is provisionally assumed here that the annual tree harvest is now at its sustained-yield ceiling.1/ Any increases in employment will have to come, therefore, from diversification.

Raw materials appear to be available within the county which could make possible the establishment of a pulp mill near Roseburg during the period 1960-80.2/ Other diversified uses of the timber resource are not in sight at this time. As for the development of other resources, while some possibilities exist, they do not appear to have a potential for providing substantial employment. Mining may increase, but total employment in that industry is only about 150 at

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1/ According to the Oregon Development Commission (Umpqua River Valley study, by Sandwell, March 1958, p. 5), there is a possibility that the present annual cut may have to be reduced in the future. The present average annual cut "is substantially greater than the present net growth rate and the potential growth rate" shown in the report. Future increases in efficiency may offset this, however, But even if the cut could be increased, it might not result in any increase in employment, due to rising productivity per worker.

2/ The report by Sandwell referred to in Note 1 suggests a site on the North Umpqua near Winchester but adds that other equally good sites are available.

the present time. Agriculture is not likely to provide increased employment[1] and hence any substantial increase in food processing employment is unlikely. While grazing does provide a raw material, it seems probable that it will continue to go to established mills outside the county. There is some possibility for growth in service industries due to an increase in the number of tourists and to a spill-over of retired persons from California. However, in the latter regard, the adjacent Jackson-Josephine area would seem to have greater potential. The establishment of the Veterans' Hospital provided a growth stimulus in the past which cannot be counted on to be repeated.

B. Population.

In a highly specialized economy where the unique resource is being fully exploited and where other resources are too marginal to provide substantial increases in employment, possibilities for population growth are limited. In terms of potential now visible, it appears that Douglas County's growth rate will decline to one of the lowest in the State during the decades ahead. Projected population and growth rates for Douglas County are shown in Table 3.

The transition from rapid growth to slow growth may raise problems of adjustment in Douglas County. In other areas, such rapid growth, based upon intensive exploitation of a single resource, has sometimes been followed not only by a leveling off of population increase but by actual decline. In the case of Douglas County, however, the maintenance of the timber harvest on a sustained yield basis should prevent the deterioration of the resource base and population decline.

The population increase projected in Table 3, 12,000 during the period 1960-80, will require about 4,800 new jobs for its support.

1/ The number of farms and agricultural workers in Douglas County declined substantially from 1954 to 1959. This was due to the general long-term trend of increasing productivity per worker in agriculture. Therefore, even if farm acreage were to increase, any increase in agricultural employment would be unlikely. The possibilities for increasing agricultural acreage and production do not seem great enough to support any substantial increase in employment in related industries. The terrain of the county would appear to limit agricultural expansion.

Table 2 (See Section IIC)
DISTRIBUTION OF DOUGLAS COUNTY POPULATION BY DRAINAGE BASIN
April 1, 1960

Census County Division or Enumeration District	Main Stem	North Umpqua	South Umpqua
Calapooya:			
Oakland	856		
E.D. 43	1,461		
E.D. 45	854		
E.D. 46	842		
Sutherlin		2,452	
E.D. 44		569	
East Roseburg			2,437
Elkton-Drain	2,878		
Kellogg-Yoncalla	2,530		
Lookingglass			6,036
Melrose	763 e		954 e
Myrtle Creek-Riddle			10,497
North Umpqua		2,811 e	150 e
Reedsport	5,246		
Riverdale:			
Barnes			924
E.D. 30			882
E.D. 31		100 e	368 e
Roseburg			11,467
South Umpqua			3,737
Tenmile			2,332
Wilbur	200 e	849 e	
Winchester:			
E.D.'s 33-35			4,152
E.D. 36		352 e	353 e
E.D. 37		803 e	604 e
TOTALS	15,630	7,936	44,892

e - Distribution within enumeration district estimated from U. S. G. S. quadrangles.

Table 3 (See Section IIIB)
PROJECTED POPULATION AND GROWTH RATES
FOR DOUGLAS COUNTY COMPARED WITH OTHER AREAS
1920-2010

	1920	1930	1940	1950	1960	1980	2010
Douglas County, population to nearest thousand	21	22	26	54	68	80	102
Percentage increase, compound annual rate, during period ending in year shown							
Douglas County		0.4	1.7	7.6	2.3	0.8	0.8
Oregon			1.3	3.4	1.5	2.0	1.7
United States			0.7	1.4	1.7	1.6	1.4